

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 11269 — Soil Quality Effects of Pollutants on Plants

ISO Certification Programme



LAPT — London Academy of Professional Training

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Reference ENV-SOL-11269 • ISO Environmental Sustainability

UKPRN 10067351 • Registered in England and Wales, company 4984798

AT A GLANCE

REFERENCE	ENV-SOL-11269
AWARD	Certificate
ASSESSMENT	430 marks — 258 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1

Advanced Soil Assessment Techniques

5 chapters · 30 classes85 marks

• 1 Fundamentals of Soil Quality and Pollutant Interaction — 6 classes

› 1.1 Define Soil Quality and Its Importance in Agriculture

› 1.2 Identify Key Pollutants Impacting Soil Quality

› 1.3 Explain Soil Pollutant Interactions with Plant Health

› 1.4 Assess Soil Quality Indicators in Polluted Areas

› 1.5 Evaluate the Effects of Pollutants on Plant Growth

› 1.6 Develop Strategies for Mitigating Pollutant Impact on Soil Quality

• 2 Standards and Methodologies in Soil Quality Assessment — 6 classes

› 2.1 Evaluate Key Standards for Soil Quality Assessment

› 2.2 Analyze Methodologies in Pollutant Impact Studies

› 2.3 Compare ISO 11269 to Other Soil Quality Standards

› 2.4 Examine Data Collection Techniques for Soil Analysis

› 2.5 Apply Assessment Methods to Real-World Scenarios

› 2.6 Develop a Soil Quality Assessment Report

• 3 Advanced Techniques for Soil Sampling and Analysis — 6 classes

› 3.1 Identify and Select Sampling Sites in Diverse Environments

› 3.2 Implement Stratified Sampling Techniques for Soil Quality Assessment

› 3.3 Utilize Advanced Tools for Soil Sample Collection and Handling

› 3.4 Analyze Soil Samples Using Laboratory Techniques for Pollutant Detection

› 3.5 Interpret Soil Analysis Results in Relation to Plant Health

› 3.6 Design a Soil Quality Monitoring Program Based on Findings

• 4 Evaluating Plant Responses to Soil Pollutants — 6 classes

› 4.1 Identify Common Soil Pollutants Affecting Plant Growth

› 4.2 Analyze Plant Morphological Responses to Pollutant Exposure

› 4.3 Measure Physiological Changes in Plants Due to Soil Contaminants

› 4.4 Assess Biochemical Indicators of Plant Stress from Soil Pollutants

› 4.5 Evaluate Remediation Techniques for Polluted Soil and Plant Recovery

› 4.6 Develop a Soil and Plant Health Assessment Report Based on Findings

• 5 Integrating Soil Quality Assessment into Environmental Management — 6 classes

› 5.1 Define Soil Quality and Its Importance in Environmental Management

› 5.2 Identify Key Pollutants Affecting Soil Quality

› 5.3 Explore Advanced Assessment Techniques for Soil Quality

› 5.4 Analyze the Impact of Soil Pollutants on Plant Health

› 5.5 Develop Strategies for Soil Quality Improvement in Management Plans

› 5.6 Evaluate Case Studies of Successful Soil Quality Integration

• 1 Introduction to Environmental Policy and Soil Quality Regulations — 6 classes

- › 1.1 Define Environmental Policy and Its Importance in Soil Quality
- › 1.2 Explore Key Pollutants Affecting Soil Quality and Plants
- › 1.3 Analyze ISO 11269 Standards and Their Relevance to Soil Quality
- › 1.4 Identify Regulatory Frameworks Governing Soil Pollution in the UK
- › 1.5 Evaluate Case Studies on Soil Quality Regulations and Their Impact
- › 1.6 Implement Best Practices for Soil Quality Management in Environmental Policy

• 2 Key Legislation Impacting Soil Quality in the UK — 6 classes

- › 2.1 Identify Key Legislation Affecting Soil Quality in the UK
- › 2.2 Analyze Impacts of Pollutants on Soil and Plant Health
- › 2.3 Explore the Role of the Environmental Agency in Soil Regulations
- › 2.4 Examine Case Studies of Legislation Application in Soil Remediation
- › 2.5 Assess Compliance Requirements for Soil Quality Standards
- › 2.6 Develop a Strategy for Effective Soil Quality Management

• 3 International Standards and ISO 11269 Compliance — 6 classes

- › 3.1 Analyze the Importance of ISO 11269 in Soil Quality Assessment
- › 3.2 Identify Key Pollutants Impacting Soil and Plant Health
- › 3.3 Explore the Principles of International Standards in Environmental Policy
- › 3.4 Assess Compliance Requirements for ISO 11269 Implementation
- › 3.5 Evaluate Case Studies on Pollutant Effects Using ISO 11269 Standards
- › 3.6 Develop an Action Plan for ISO 11269 Compliance in Local Policies

• 4 Risk Assessment and Management of Soil Pollutants — 6 classes

- › 4.1 Define Key Terms in Soil Pollutant Risk Assessment
- › 4.2 Identify Common Soil Pollutants and Their Sources
- › 4.3 Analyze the Ecological Impacts of Soil Pollution on Plant Growth
- › 4.4 Evaluate Risk Assessment Methodologies for Soil Pollutants
- › 4.5 Develop Management Strategies to Mitigate Soil Pollution Risks
- › 4.6 Create a Plan for Monitoring Soil Quality and Pollutant Levels

• 5 Future Trends in Environmental Policy for Soil Quality — 6 classes

- › 5.1 Analyze Future Pollutant Trends Impacting Soil Quality
- › 5.2 Evaluate Current Environmental Policies on Soil Pollution
- › 5.3 Investigate Innovative Remediation Techniques for Soil
- › 5.4 Develop Strategies for Sustainable Soil Management
- › 5.5 Propose Policy Recommendations for Soil Quality Improvement
- › 5.6 Create a Soil Quality Action Plan for Local Implementation

• 1 Understanding Soil Composition and Health Indicators — 6 classes

- › 1.1 Identify Key Components of Soil Composition
- › 1.2 Explore the Role of Soil Microorganisms in Plant Health
- › 1.3 Analyze Common Soil Tests for Health Indicators
- › 1.4 Evaluate the Effects of Heavy Metals on Soil Quality
- › 1.5 Investigate Organic versus Inorganic Pollutants in Soil
- › 1.6 Develop Strategies to Remediate Polluted Soil for Plant Health

• 2 Types of Soil Pollutants and Their Sources — 6 classes

- › 2.1 Identify Common Soil Pollutants and Their Characteristics
- › 2.2 Explore Natural vs. Anthropogenic Sources of Soil Pollutants
- › 2.3 Analyze the Impact of Heavy Metals on Soil Quality
- › 2.4 Investigate Organic Pollutants and Their Effects on Plant Health
- › 2.5 Assess the Role of Pesticides and Herbicides in Soil Contamination
- › 2.6 Propose Mitigation Strategies for Soil Pollution in Agricultural Practices

• 3 Mechanisms of Pollutant Uptake by Plants — 6 classes

- › 3.1 Explore How Plants Absorb Soil Pollutants
- › 3.2 Analyze the Pathways of Pollutant Movement in Soils
- › 3.3 Investigate the Role of Root Structures in Pollutant Uptake
- › 3.4 Assess the Impact of pH on Pollutant Absorption
- › 3.5 Evaluate the Effects of Pollutant Types on Different Plant Species
- › 3.6 Design a Field Study to Monitor Plant Health in Polluted Areas

• 4 Impact of Pollutants on Plant Growth and Development — 6 classes

- › 4.1 Identify Key Pollutants Affecting Plant Growth
- › 4.2 Analyze the Mechanisms of Pollutant Impact on Plant Physiology
- › 4.3 Evaluate the Effects of Heavy Metals on Plant Development
- › 4.4 Investigate the Role of Pesticides in Soil Health and Plant Growth
- › 4.5 Assess Mitigation Strategies for Pollutant Effects on Plants
- › 4.6 Develop Action Plans for Pollutant Management in Agriculture

• 5 Mitigation Strategies for Pollutant-Impacted Soils — 6 classes

- › 5.1 Identify Common Pollutants and Their Effects on Soil Health
- › 5.2 Evaluate the Impact of Pollutants on Plant Growth and Development
- › 5.3 Explore Soil Remediation Techniques for Pollutant Mitigation
- › 5.4 Implement Phytoremediation Strategies for Contaminated Soils
- › 5.5 Develop Integrated Soil Management Practices to Enhance Soil Quality
- › 5.6 Assess the Long-Term Effects of Mitigation Strategies on Plant Health

• 1 Understanding Soil Quality and Its Importance in Environmental Sustainability — 6 classes

- › 1.1 Define Soil Quality and Its Metrics
- › 1.2 Examine the Role of Pollutants on Soil Health
- › 1.3 Analyze the Impact of Soil Quality on Plant Growth
- › 1.4 Identify Sustainable Practices for Soil Management
- › 1.5 Assess Case Studies of Pollutant Effects on Agriculture
- › 1.6 Develop Action Plans for Improving Soil Quality

• 2 Introduction to ISO 11269: Standards for Assessing Soil Quality

— 6 classes

- › 2.1 Explore the Key Principles of ISO 11269 Standards
- › 2.2 Analyze the Impact of Soil Quality on Plant Health
- › 2.3 Investigate the Role of Pollutants in Soil Quality Assessment
- › 2.4 Evaluate Soil Quality Indicators Used in ISO 11269
- › 2.5 Apply ISO 11269 Standards to Real-World Scenarios
- › 2.6 Develop a Soil Quality Improvement Plan Based on ISO 11269

• 3 Identifying Soil Pollutants and Their Impact on Plant Health — 6

classes

- › 3.1 Identify Common Soil Pollutants Affecting Plant Health
- › 3.2 Analyze the Sources and Causes of Soil Pollution
- › 3.3 Evaluate the Effects of Soil Pollutants on Plant Growth
- › 3.4 Investigate Soil Pollutant Mechanisms and Interaction with Plants
- › 3.5 Assess Mitigation Strategies for Soil Pollution Impact on Plant Health
- › 3.6 Develop an Action Plan for Sustainable Soil Management Practices

• 4 Leadership Strategies for Managing Soil Quality and Pollution — 6 classes

- › 4.1 Analyze Soil Pollutants and Their Effects on Plant Health
- › 4.2 Identify Key Leadership Traits for Environmental Advocacy
- › 4.3 Develop Sustainable Soil Management Strategies
- › 4.4 Engage Stakeholders in Soil Quality Improvement Initiatives
- › 4.5 Assess the Impact of Soil Pollution on Ecosystem Services
- › 4.6 Implement Community Education Programs for Soil Conservation

• 5 Implementing ISO 11269 in Soil Quality Management Practices —

6 classes

- › 5.1 Assessing Soil Quality: Introduction to ISO 11269 Standards
- › 5.2 Identifying Pollutants: Recognizing Soil Contaminants Affecting Plant Growth
- › 5.3 Evaluating Impacts: Investigating How Pollutants Affect Soil Quality
- › 5.4 Implementing Testing Methods: Practical Techniques for Soil Pollutant Analysis
- › 5.5 Developing Remediation Strategies: Solutions for Polluted Soil Management
- › 5.6 Leading Change: Engaging Stakeholders in Sustainable Soil Quality Practices

• 1 Fundamentals of Soil Quality and Pollutants — 6 classes

- › 1.1 Define Soil Quality: Understanding Key Concepts and Indicators
- › 1.2 Identify Common Pollutants: Sources and Types Affecting Soil
- › 1.3 Explore Soil-Pollutant Interactions: Mechanisms and Effects
- › 1.4 Assess Impacts of Pollutants on Plant Growth and Development
- › 1.5 Evaluate Soil Remediation Techniques: Strategies for Recovery
- › 1.6 Apply Knowledge: Conducting a Soil Quality Assessment and Report

• 2 Mechanisms of Pollutant Uptake in Plants — 6 classes

- › 2.1 Explore the Mechanisms of Pollutant Uptake in Plant Roots
- › 2.2 Investigate Transport Pathways for Pollutants Within Plants
- › 2.3 Analyze Factors Influencing Pollutant Bioavailability in Soil
- › 2.4 Assess the Role of Mycorrhizal Fungi in Pollutant Uptake
- › 2.5 Evaluate the Impact of Soil pH on Pollutant Mobility in Plants
- › 2.6 Apply Knowledge of Pollutant Uptake to Real-World Case Studies

• 3 Impact of Soil Pollutants on Plant Physiology — 6 classes

- › 3.1 Identify Soil Pollutants Impacting Plant Growth
- › 3.2 Examine Mechanisms of Pollutant Uptake by Plants
- › 3.3 Analyze Effects of Heavy Metals on Plant Physiology
- › 3.4 Investigate the Role of Soil Microorganisms in Pollutant Dynamics
- › 3.5 Assess Plant Responses to Soil Contaminants under Varied Conditions
- › 3.6 Develop Strategies for Mitigating Soil Pollutant Effects on Plants

• 4 Assessment Techniques for Pollutant Effects on Soil and Plants

— 6 classes

- › 4.1 Identify Key Pollutants Impacting Soil Quality
- › 4.2 Analyze Soil Samples for Pollutant Presence
- › 4.3 Evaluate Plant Responses to Soil Pollutants
- › 4.4 Implement Assessment Techniques for Soil Health
- › 4.5 Interpret Data on Pollutant Effects on Vegetation
- › 4.6 Develop Mitigation Strategies for Pollutant Impact

• 5 Remediation Strategies for Polluted Soils — 6 classes

- › 5.1 Identify Common Soil Pollutants and Their Sources
- › 5.2 Explain the Impact of Pollutants on Soil Quality and Plant Health
- › 5.3 Evaluate Remediation Technologies for Soil Contamination
- › 5.4 Compare Biological and Chemical Remediation Strategies
- › 5.5 Design a Remediation Plan for a Hypothetical Polluted Site
- › 5.6 Assess the Effectiveness of Remediation Techniques Using Case Studies

• 1 Understanding Soil Quality and Its Importance in Sustainable Practices — 6 classes

- › 1.1 Define Soil Quality and Its Components
- › 1.2 Explore the Role of Pollutants on Soil Quality
- › 1.3 Analyze the Impact of Soil Quality on Plant Health
- › 1.4 Investigate Sustainable Soil Management Practices
- › 1.5 Evaluate Soil Quality Assessment Methods
- › 1.6 Develop a Plan for Improving Soil Quality in Agricultural Practices

• 2 Identifying and Measuring Soil Pollutants — 6 classes

- › 2.1 Understand the Types of Soil Pollutants Affecting Plant Health
- › 2.2 Explore Sources of Soil Pollution in Agricultural Practices
- › 2.3 Identify Key Indicators of Soil Pollution Through Visual Inspection
- › 2.4 Measure Soil Pollutants Using Sampling Techniques
- › 2.5 Analyze Laboratory Results for Soil Contaminant Levels
- › 2.6 Develop a Soil Quality Improvement Plan Based on Pollutant Data

• 3 Effects of Soil Pollutants on Plant Growth and Development — 6 classes

- › 3.1 Identify Common Soil Pollutants Affecting Plant Growth
- › 3.2 Examine the Mechanisms of Plant Response to Soil Contaminants
- › 3.3 Analyze the Impact of Heavy Metals on Plant Development
- › 3.4 Evaluate the Role of pH Levels in Mitigating Soil Pollutants
- › 3.5 Investigate Sustainable Soil Management Practices for Polluted Sites
- › 3.6 Implement a Soil Remediation Strategy to Enhance Plant Health

• 4 Implementing Sustainable Soil Management Practices — 6 classes

- › 4.1 Assess Soil Quality Indicators for Sustainable Management
- › 4.2 Identify Common Pollutants Impacting Soil and Plants
- › 4.3 Analyze the Effects of Pollutants on Plant Growth
- › 4.4 Explore Sustainable Practices for Soil Remediation
- › 4.5 Design a Soil Management Plan to Mitigate Pollutant Effects
- › 4.6 Evaluate the Success of Implemented Soil Management Practices

• 5 Evaluating and Monitoring Soil Health Post-Implementation — 6 classes

- › 5.1 Identify Key Indicators of Soil Health
- › 5.2 Assess Soil Quality Through Visual Inspection Techniques
- › 5.3 Analyze Soil Samples for Contaminant Levels
- › 5.4 Compare Pre- and Post-Implementation Soil Data
- › 5.5 Develop a Monitoring Plan for Long-term Soil Health
- › 5.6 Report Findings and Recommend Improvements for Soil Management